

(54) SEMICONDUCTOR DEVICE

(11) 5-75015 (A) (43) 26.3.1993 (19) JP

(21) Appl. No. 3-234485 (22) 13.9.1991

(71) SHARP CORP (72) AKIO GOTO

(51) Int. Cl. H01L25/055, H01L25/07, H01L25/18

PURPOSE: To improve a manufacturing yield of devices as a whole by a method wherein a common input/output lead is connected electrically with each of stacked chips and the whole is sealed with resin or a cap.

CONSTITUTION: In a semiconductor device 1 wherein four semiconductor chips 2 are stacked, each of the semiconductor chips 2 is provided with bumps 3 on the opposite sides and copper foil leads 4 are connected to the bumps 3 respectively. These chips 2 are stacked with insulating layers 5 interposed. The leads 4 are connected electrically by studs 6 and the stud of the lowermost layer is connected to a lead frame 7. The lead frame 7 is fixed on a base made of plastic and resin packing is conducted in this state. According to this constitution, the number of input/output terminals formed on each chip can be lessened and the quality of the semiconductor chips having the respective functions can be inspected before the chips are assembled.

